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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,287	11/13/2003	Naoki Kusunoki	Q78442	5668

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EXAMINER

ALUNKAL, THOMAS D

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/706,287	Applicant(s) KUSUNOKI ET AL.	
	Examiner Thomas D. Alunkal	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/13/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2, and 5-8 rejected under 35 U.S.C. 102(b) as being anticipated by Nakano (U.S. PgPub 2001/0008872 A1).

Regarding **Claim 1**, Nakano discloses a recording medium comprising a storage layer (see **Paragraph 19**) for storing data and an indication layer (see **Paragraph 10**) for providing indication information relating to the stored data, wherein the indication information can be written at the indication layer, and at least a portion of the indication information which has been written can be rewritten (see **Paragraph 10**).

Regarding **Claim 2**, Nakano discloses all limitations of parent claim above. Nakano also discloses wherein the indication layer includes electronic paper (see **Paragraph 20**).

Regarding **Claim 5**, Nakano discloses all limitations of parent claim above. Nakano also discloses where in the indication layer has a heat recording layer (see

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Paragraph 23) at which the indication information can be recorded and deleted by heat treatment (**see Paragraph 41**).

Regarding **Claim 6**, Nakano discloses a writing device writing data to a recording medium having a storage layer (**see Paragraph 19**) for storing data, and an indication layer (**see Paragraph 10**) for providing indication information relating to the stored data. The device comprising, a storing section storing data at the storage layer of the recording medium (**see Paragraph 19**), a writing section writing, at the indication layer, the indication information which relates to the stored data and which is for indication at the recording medium (**see Paragraphs 19 and 23**).

Regarding **Claim 7**, Nakano discloses all limitations of parent claim above. Nakano discloses, wherein the indication information can be written at the indication layer, and at least a portion of the indication information which has been written can be rewritten (**see Paragraph 10**).

Regarding **Claim 8**, Nakano discloses all limitations of parent claim above. Nakano also discloses wherein the indication layer includes electronic paper (**see Paragraph 20**).

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamaoki et al (**U.S. 6,197,460**).

Regarding **Claim 1**, Tamaoki et al disclose a recording medium comprising a storage layer (**see Column 3, lines 58-61**) for storing data and an indication layer (**see Column 1, lines 36-40**) for providing indication information relating to the stored data, wherein the indication information can be written at the indication layer, and at least a

portion of the indication information which has been written can be rewritten (**see Column 1, lines 36-40**).

Regarding **Claim 3**, Tamaoki et al disclose all limitations of parent claim above. Tamaoki et al also disclose wherein the indication layer has a cholesteric layer and a transparent electrode layer on a light absorbing layer (**see Column 1, lines 46-52**)

Claims 1,4,6,7,9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al (**U.S. 6,778,205**).

Regarding **Claim 1**, Anderson et al disclose a recording medium comprising a storage layer (**see Figure 3A, Element 202**) for storing data and an indication layer (**see Figure 3A, Element 302**) for providing indication information relating to the stored data, wherein the indication information can be written at the indication layer, and at least a portion of the indication information which has been written can be rewritten (**see Column 4, lines 19-23**).

Regarding **Claim 4**, Anderson et al disclose all limitations of parent claim above. Anderson et al also disclose wherein the indication information is written by irradiating light in a form of an image onto the indication layer (**see Column 3, lines 7-10**).

Regarding **Claim 6**, Anderson et al discloses a writing device writing data to a recording medium having a storage layer (**see Figure 3A, Element 202**) for storing data, and an indication layer (**see Figure 3A, Element 302**) for providing indication information relating to the stored data. The device comprising, a storing section storing data at the storage layer of the recording medium (**see Figure 1, Elements 100, 108 and 112a**), a writing section writing, at the indication layer, the indication information

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which relates to the stored data and which is for indication at the recording medium (see **Figure 1, Elements 100, 108, and 112a**).

Regarding **Claim 7**, Anderson et al disclose all limitations of parent claim above. Anderson et al also disclose wherein the indication information can be written at the indication layer (see **Figure 3A, Element 302**), and at least a portion of the indication information which has been written can be rewritten (see **Column 4, lines 19-23**).

Regarding **Claim 9**, Anderson et al disclose all limitations of parent claim above. Anderson et al also disclose wherein the storing section also stores the indication information at the storage layer (see **Figure 1, Elements 108 and 112a and Column 1, lines 60-62**).

Regarding **Claim 10**, Anderson et al disclose all limitations of parent claim above. Anderson et al also disclose a data memory section for storing the stored data and the indication data (see **Figure 1, Element 110, and Column 3, lines 56-65**). Here, Anderson et al disclose that logic (**Figure 1, Element 110**) may include a combination of hardware, firmware and/or software. Anderson et al disclose that logic controls the data which is to be written on both the data storage and indication layers. Thus, it is inherent that logic (hardware) must be the storage location of data to be written.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11,12,14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (**U.S. 6,778,205**) as applied to claims **1,4,6,7,9 and 10** above, and further in view of Murata (**U.S. 6,363,040**).

Regarding **Claim 11**, Anderson et al disclose a detecting section (**see Figure 1, Elements 106 and 110 Column 3, lines 56-60**) which detects data that is stored at the storage layer of the recording medium. Anderson et al also disclose a generating section (**see Figure 1, Element 108 and Column 3, lines 62-65**) that stores indication information at the indication layer. Anderson et al also disclose wherein a storing section stores, at the storage layer, detection data (**see Figure 1, Elements 106, 108, and 110 and Column 3, lines 56-65**), and the writing section writes at the indication layer (**see Figure 1, Element 108 and Column 3, lines 62-65**). Anderson et al, however, fail to explicitly disclose that the detection section will be detecting the difference between stored data and data which is to be read from memory. However, Murata discloses detecting the difference between stored data and data which is to be read from memory (**see Figure 1, Elements S17, S19-22 and Figure 4**). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Murata's teachings the teachings of Anderson et al. One of ordinary skill at the time of the invention would easily realize that by comparing stored data to data ready to be read from memory, redundant information would not be stored on the disc. Murata displays only new data being stored to the storage medium in **Figure 4**. This leads to more room for data, as well as a reduction in storage media needed.

Regarding **Claim 12**, Anderson et al also disclose wherein the indication information can be written at the indication layer (see **Figure 3A, Element 302**), and at least a portion of the indication information which has been written can be rewritten (see **Column 4, lines 19-23**).

Regarding **Claim 14**, Anderson et al also disclose wherein the storing section also stores, at the storage layer, the indication information which corresponds to the difference (see **Figure 1, Elements 108 and 112a and Column 1, lines 60-62**).

Regarding **Claim 15**, Anderson et al also disclose a data memory section for storing the stored data and the indication data which corresponds to the difference between the data stored at the storage layer and the new data (see **Figure 1, Element 110, and Column 3, lines 56-65**). Here, Anderson et al disclose that logic (**Figure 1, Element 110**) may include a combination of hardware, firmware and/or software. Anderson et al disclose that logic controls the data which is to be written on both the data storage and indication layers. Thus, it is inherent that logic (hardware) must be the storage location of data to be written.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (**U.S. 6,778,205**) and Murata (**U.S. 6,363,040**) and further in view of Nakano (**U.S. PgPub 2001/0008872 A1**).

Regarding **Claim 13**, Anderson et al and Murata do not disclose wherein the indication layer includes electronic paper. However, Nakano discloses wherein the indication layer includes electronic paper (see **Paragraph 20**). It would have been obvious to one of ordinary skill in the art to combine the above teachings of Anderson et

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al and Murata with those Nakano. Both Anderson et al and Nakano teach labeling methods for optical recording medium. In **column 1, lines 52-54** Anderson et al disclose that one problem to be overcome in labeling an optical disc is avoiding the smearing of labeling ink. Nakano teaches the use of electronic paper (**see Paragraph 20**), which has properties that prevent the label from being smeared. Thus, one of ordinary skill in the art at the time of the invention would have been motivated to incorporate Nakano's teaching of electronic paper to Anderson et al's above teachings because the use of electronic paper would eliminate the smearing of labeling ink.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Alunkal whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

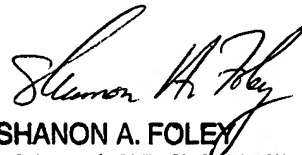
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on (571)272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thomas Alunkal
Patent Examiner



SHANON A. FOLEY
SUPERVISORY PATENT EXAMINER